White Paper Report

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FINAL PERFORMANCE REPORT

HD-50543-08

Creating a Sense of Place through Archeology

Moving Archeology from Deep Storage into the Public Eye through the Internet

Developing the Prototype Vermont Archeology Museum at:

http://vtarch.emergentmediacenter.com/

Project Director: Giovanna Peebles (**giovanna.peebles@state.vt.us**)
Institution: Vermont Division for Historic Preservation
Date of Submission: May 10, 2010

FINAL PERFORMANCE REPORT

Project Activities:

The Vermont Division for Historic Preservation (VTDHP) applied for and received a National Endowment for the Humanities (NEH) Digital Start-Up Level I grant of $25,000 in 2008 to develop an Internet-based, prototype, virtual archeology "museum" for Vermont. The grant application promised to:

> ....design an Internet-based museum with many rooms populated with all the many digital data sets collected by archeologists that now generally live only in their hard drives and in technical publications: GIS spatial data, photos of artifacts, artifact databases, field notes, site summaries, historic maps, technical reports, and other information. But we are going to go a step further with our virtual museum: we are going to ask archeologists to tell 1st person stories about their discoveries and invite indigenous people and other community members to write their own stories about the archeological sites. We want to create a virtual museum template that can be easily replicated by other states, institutions, and organizations that don't have the resources to create their own and facilitate a shift in paradigm for displaying and accessing archeological information (Peebles 2008:4)

In late August 2009, the VTDHP, in collaboration with the application's developer, Champlain College's Emergent Media Center (EMC), launched the draft prototype Vermont Archeology Museum (VAM) web site. After a short period of use and with comments from several advisors and users, the VAM application was further revised and launched in its current final prototype version in late December 2009 at **http://vtarch.emergentmediacenter.com/**.

The prototype VAM exceeded our expectations in a variety of ways; in other ways, VAM differed from what was envisioned in the April 2008 application to NEH. The prototype application met its core requirements of using open source software and displaying many different types of archeological site information. VAM exceeded our expectations in its wealth of social-networking features; its "funness" as a web site; the simplicity with which anyone can add content; and the application's functionality promoting far more content than just archeological site information. The visionary grant application goal of "revolutioniz[ing] current practices of disseminating archeological information to scholars, educators, students, communities, and the general public" has not yet been realized. It's apparent that there is a significant lag time between the availability of an application and users' embrace of it. Part of that results from sheer digital "overload." As the Project Director noted elsewhere (Peebles 2010b:18), a recent special report

in *The Economist* on "Data, Data Everywhere" says that "the world contains an unimaginably vast amount of digital information which is getting ever vaster ever more rapidly" (Cukier 2010:3). Cukier quotes one scientist as saying that "the proliferation of data is making them increasingly inaccessible."   The on-going challenge is to continually promote and market VAM as THE place to go to find archeological information for Vermont (and beyond); and THE place to post information and to engage other scholars and a multitude of stakeholders.

Changes in Anticipated Project Staff and Personnel:

The grant application anticipated 11 days of involvement from the Agency of Commerce and Community Development's Information Technology (IT) staff (Dana Dean, David Metraux, and Steve Coble). The original intent had been to secure internal IT staff help in developing requirements for the application, then putting out a Request for Proposal for a consultant to develop the application. This expectation was not to be: the grant award in the Fall of 2008 coincided with downsizing of the Agency's IT group. The IT division was thus unable to provide any significant help in project development. This situation actually benefited the project since it

required the Project Director to seek a creative solution to developing the application. Another personnel change from the original grant application was the role of the three outside experts: Professor Elizabeth Chilton, Department of Anthropology, University of Massachusetts Amherst; Dr. David Pollack, University of Kentucky and formerly Director of the Kentucky Archaeological Survey; and Mara Saule, Dean of Libraries and Director of the Libraries' Center for Digital Initiatives, University of Vermont. In addition to writing letters in support of the grant application, these scholars had agreed to work with the Project Director to develop VAM's vision and key requirements, which included several days of participation by each individual. After an initial phone conference in January of 2009, this group did not convene again as a unit. Rather these experts worked individually - - for shorter time than planned - - with the Project Director and provided helpful input as VAM developed. Some but not all members of the Advisory Board, consisting of various specialists and K-12 educators, participated in an animated afternoon-long brainstorming session (via phone and in person) in July 2009 to review and discuss the VAM concept and some responded to a survey questionnaire.

Lack of technical r from agency IT staff forced the Project Director to seek an alternative to developing requirements in-house and hiring web design consultants to develop the application. With only a vision, a "wish list," and a list of very preliminary requirements in hand, the Project Director invited the Emergent Media Center (EMC) at Champlain College to partner in developing the museum, including developing technical requirements, proof of concept, and the prototype. The resulting prototype application exceeded expectations as a result of the extraordinary, gifted team at the EMC. A four year undergraduate program, the EMC is internationally renowned, among many reasons, for creative application of gaming technology to wide-reaching uses (http://www.champlain.edu/Emergent-Media-Center.html). True to the EMC's creative roots, EMC Director Ann DeMarle enthusiastically jumped at the opportunity to integrate technology and archeology, "to integrate very old information in a very new medium," as she described it. Working through a sub-grant from the VTDHP, the EMC selected and employed four gifted students, two juniors and two seniors - - Alex Dahl (graphics designer), Mike Fowler (game designer), Dipika Gupta (software engineer), and Christopher Cheng (software engineer and database programmer) - - to work closely with the Project Director and

EMC Project Manager Ray McCarthy Bergeron to develop the prototype web site from May through December 2009. In mid-August 2009, the Project Director and her Vermont Archeology Heritage Center summer intern, University of Vermont Historic Preservation graduate student Andrea Glenn, spent a week at the EMC computers creating exhibits for VAM.

As stipulated in the 2008 NEH grant application, the museum had to be developed using open source applications. At the same time the State of Vermont had just stipulated a requirement that all state web sites be developed in the Drupal content management system (CMS), specifically version 5.x. After considerable debate, the EMC team built VAM in Drupal 6.12 to take advantage of its social networking modules (while preferred by the state, version 5 lacks social networking features). MySQL database was used on the back-end. The post-mortem meeting with the VTDHP and EMC development team in March 2010 revealed that Drupal has a steep technical learning curve, in contrast to WordPress, another popular CMS system. On the other hand, Drupal is a vastly more powerful system than WordPress. Once the technical framework and user-friendly front-end are created by a knowledgeable team, Drupal will allow non-technical people to quickly create content and enjoy many rich features. For other organizations interested in developing a similar application to VAM, the development team recommends that an experienced Drupal person develop the template with the selected modules to minimize on-project learning time.

The name "**Vermont Archeology Museum**" was discussed at length by the development team. Is this the best name? It's evident that over time VAM will contain much more than "archeological" information; and it's not a museum in the traditional sense. However, the development team decided this was an appropriate, easy name to start capturing the interest of our potential users. The Project Director discussed the concept of "museum" elsewhere (Peebles 2010b) and how VAM captures the best aspects of a modern museum.

State of Vermont
Agency of Commerce & Community Development
VT Division for Historic Preservation

Milestones Towards Development of the Vermont Archeology Museum:

Activity:	Date:
NEH Grant awarded and briefing trip to NEH offices.	August-September 2008
Core scholar team phone conference kicked off project and discussed development process.	January 2009
Exploratory meeting with the Emergent Media Center (EMC) at Champlain College discussed feasibility of partnership and project definition.	February- March 2009
Survey questionnaires asking about potential VAM content distributed at a large public lecture and a teacher's workshop (100 people).	February – March 2009
Presented paper on VAM vision and preliminary concept at 37th annual international conference on Computer Applications and Quantitative Methods in Archaeology (CAA), Williamsburg, VA – obtained lots of excellent feedback, advice, and ideas.	March 22 – 26, 2009
Executed Grant Agreement with EMC; began project development with EMC team.	May 2009
Using EMC's BaseCamp project management and collaboration software (http://basecamphq.com/), Project Director and EMC team met in person weekly and conversed daily on-line to develop VAM concept.	June – July 2009
Presented and reviewed preliminary layout and requirements with Advisory Committee and other state agency staff at a 3 hour meeting.	July 16, 2009
Project Director and archeology assistant created a number of "exhibits" for VAM.	Mid August 2009
Launched preliminary prototype site for testing and evaluation. State decides to leave prototype on EMC server for time being since state cannot support Drupal 6.12.	End August 2009
Distributed survey questionnaire (using Survey Monkey) by email and post on VAM to identify users, their age, use of social networking sites, and ask specific questions about VAM's design and content. A disappointing 20 responses were received but they were nonetheless useful.	September 2009
Executed contract amendment with EMC to extend contract period to refine VAM based on testing and evaluations.	October 2009
VAM revised including design and layout; social networking features built out; technical glitches fixed.	October – mid-December 2009
Final VAM prototype launched at **http://vtarch.emergentmediacenter.com/**	End of December 2009

Accomplishments:

As reported above and as described in more detail below, the Vermont Archeology Museum (VAM) exceeded expectations. We developed an interesting and innovative Internet portal for Vermont archeology which can be used by all audiences to share and exchange information. The site's potential is huge. Another indirect accomplishment of the project was the Project Director's extensive research into virtual "museums" and the rich world of digital humanities applications (a sampling is noted in Peebles 2010b). In the last several years there's been an explosion of web-based digital libraries, archives collections, databases, museums, and frameworks. These have served as wonderful examples of what is possible and feasible (or not, on our budget) and have offered comparables for the VAM application. Many are very costly applications, such as the French Ministry of Culture's fabulous *Great Archaeological Sites* virtual museum (http://www.culture.gouv.fr/culture/arcnat/en/main.htm). The recently formed Digital Antiquity collaborative has begun development of its digital repository, the Digital

Archaeological Record (tDAR) (http://www.tdar.org/confluence/display/TDAR/Home), a "super" version of VAM but lacking the social networking and storytelling elements.

The Project Director has written two recent papers on the Vermont Archeology Museum (Peebles 2010a and 2010b) and directs readers to go to that literature for more discussion.

Audiences:

After extensive discussion about our intended audiences, the development team decided not to target any one age or interest group: we hoped to attract all audiences of all ages. The VAM provides for four levels of users:

1) The casual **anonymous browser** can poke around in the exhibits but cannot share comments or engage in conversations. As in most web sites, the social networking functionality doesn't work unless registered and logged in.

2) The **registered and logged-in user** has access to all the functions of the web site, can create a profile, post comments, links, and videos, mark favorites, share with other friends, and so forth.

3) The **archeologist as Curator** has all the privileges of (2), above, as well as special administrative rights to create exhibits through the "Curate" tab.

4) The **State Archeologist as "Museum Director"** is both Curator and Administrator who provides administrative rights to Group 3 above.

Registering on the museum site enables "visitors" to use it as a place of communication and conversation. When you register you create a "Profile," turning you from an anonymous user to a person with interests and, if you insert a photo of yourself, a face. Registered users can see other's Profiles, and can "Friend" each other. The screen below pops up after you log in: it welcomes you and features recent Museum News.
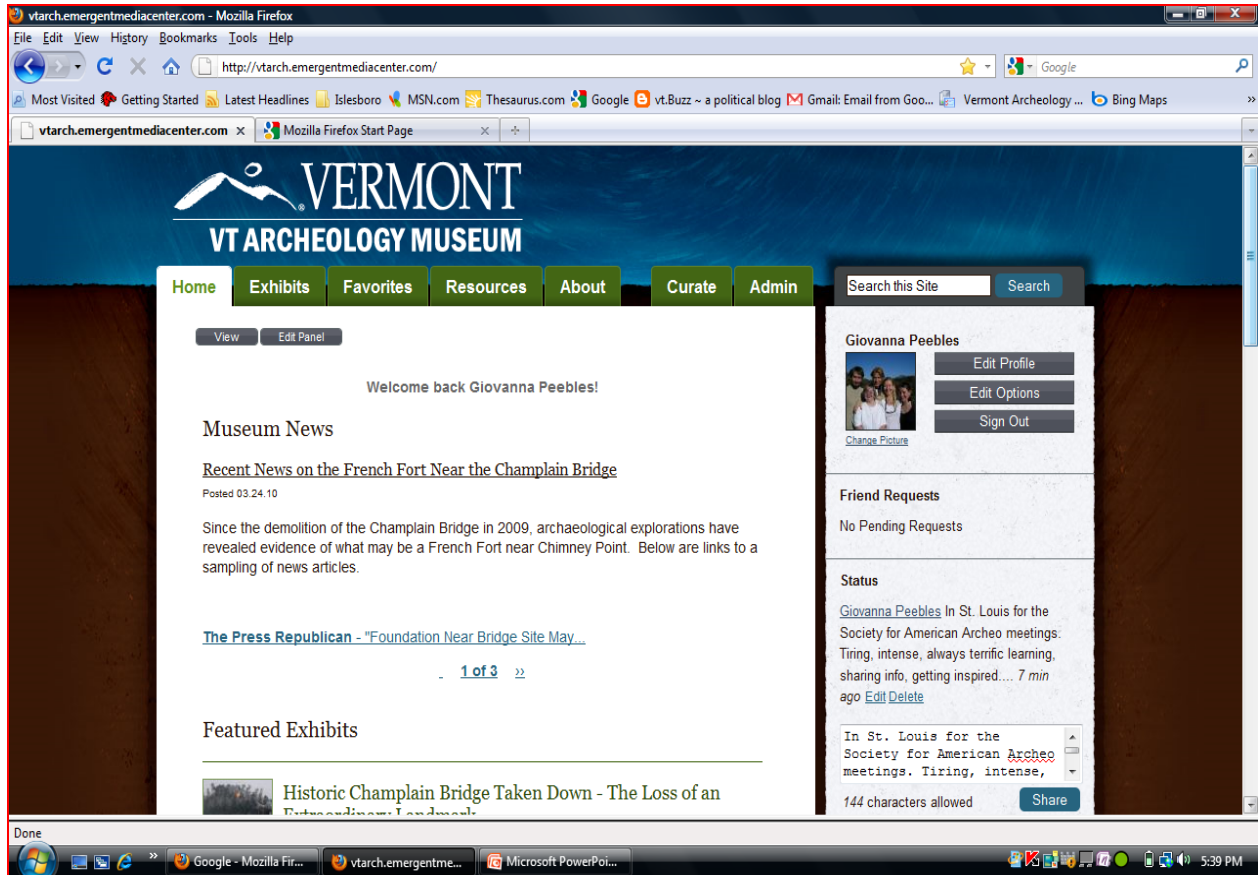
VAM was built with the core idea that archeologists are "curators" of their data collections and stories - - cultural resource management archeologists are responsible for developing their own exhibits. The vision is that VAM will foster a different way of thinking about archeology among archeologists, community members, and other stakeholders, promoting continuity from the field, to the laboratory, through analysis, to reporting, to collections care, to community engagement.

We know that some people are browsing the site since Google Analytics recorded 30 unique visitors between March 13 and April 12, 2010. Since its initial launch at the end of August 2009, feedback period, redesign in November-December, and then re-launch in December 2009, there's been no publicity or promotion. The marketing and evaluation phase now begins in earnest, getting the word out to all possible users and assign administrative rights to all archeologists working in Vermont so they can create exhibits unimpeded.

Evaluation:

The VAM prototype application has been informally evaluated throughout its evolution by the development team, project advisors, and users. Most recently (April 2010), the Project Director presented a paper on VAM at the Annual Meeting of the Society for American Archaeology in St. Louis; feedback has been uniformly enthusiastic and positive. There's a unanimous sense that the VAM application has tremendous potential to get archeological and cultural information out there for sharing and collaboration. Many see this application as unique in its combination of scholarly library and story-telling forum with the ability to get feedback from interested museum "visitors" and generate conversations on topics of mutual interest.

Going Forward:

VAM will remain in its prototype stage through 2010, and likely well into 2011. Increased work loads and decreased staff capacity at the VTDHP and Agency of Commerce and Community Development make it challenging to seek additional build-out funding any time soon. The Project Director will continue in her role as museum "director" and head cheerleader. There are many opportunities to showcase VAM and all will be taken advantage of. Upcoming promotion strategies include a page on the VTDHP web site (historicvermont.org) with links to other web sites, press release, promotion in local archeology and historic preservation newsletters, email notices, and promotion at upcoming public conferences and events such as the popular and heavily-attended History EXPO in June. Continued development of museum "exhibits" is critical and all avenues will be used to ensure that exhibits are built. Since the VTDHP (and Project Director) has regulatory oversight over Vermont archeologists, it can and will require development of exhibits to continue to build the museum's content. The Project Director also intends to encourage educators (3rd grade and up through university) to work with their students to form "groups" to study and discuss topics within the museum.

At the earliest time possible given time and funding constraints, VAM will be rebuilt to meet state standards and migrated to a state server. At that time the domain name will change to archmuseum.vermont.gov.

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A key goal in developing the VT Archeology Museum was to make sure it is essentially self-sustaining as there is no dedicated staff. While there are no licensing costs with use of open source applications, marketing and other promotion, training archeologists, providing administrative rights, monitoring content, and answering questions all cost time. Ideas for ensuring the museum's sustainability will be solicited and the use of volunteers and other stakeholders taking a more formal role needs to be considered to ensure VAM's long-term health.

Projected Long Term Impact:

The Vermont Archeology Museum will become a major education and information tool for Vermont archeology, engaging many more Vermonters (and visitors) than are now involved in archeology. This will result in more site preservation and improved stewardship as Vermonters become more aware of the amazing archeological heritage in their communities. Some of VAM's features, such as the "*Comments*" field (see bottom of screen, below) and social networking abilities, will stimulate discussion about uses of the past to create a better future.
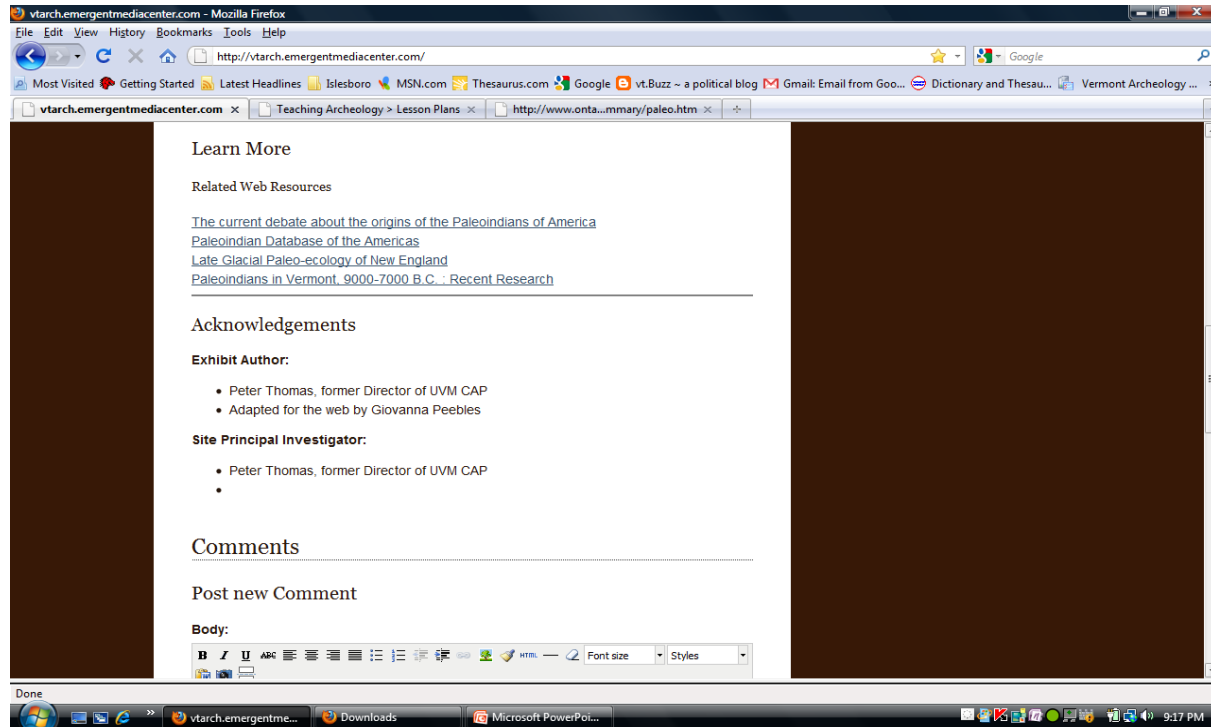
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2010b Vermont's New Internet-Based Archeology "Museum": Archeologists as Curators, with Information for Everyone. http://vtarch.emergentmediacenter.com/. Presented at the SAA 75th Anniversary Meeting, St. Louis, Missouri. April 17, 2010.